

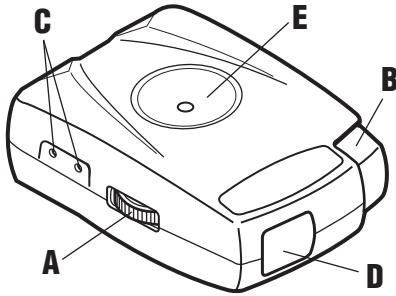
# Instructions for Pilot® Brake Control

## For 2 to 6 brake applications

### READ THIS FIRST:

Read and follow all instructions carefully before installing or operating the Brake Control. Keep these instructions with the Brake Control for future reference.

### Components of the Brake Control (Shown "Right Side Up")



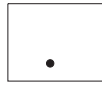
- A. Power Knob
- B. Manual Slide Knob
- C. Anchor and Pivot Holes
- D. Two Digit Power Display
- E. *Optional* Ball Mount Interface

### Important Facts to Remember

1. Do not mount or activate RF generating items (cell phones, two way radios) near (less than 12") the Brake Control.
2. **CAUTION** Reversing the connection to a breakaway battery on the trailer will destroy the Brake Control.
3. **CAUTION** Disconnect trailer plug from the tow vehicle prior to testing a breakaway switch or you may destroy the Brake Control.
4. **WARNING** The Gross Combined Weight Rating (GCWR) must never exceed the vehicle manufacturers recommendation.
5. This control specifically designed for use with electric trailer brakes.
6. For Technical Assistance and Warranty Information call: 1-888-785-5832 or [www.tekonsha.com](http://www.tekonsha.com)

## 2 Digit Power Display Legend

### Right Side Up



- Manual Slide or Tow Vehicle Brakes applied, unit is wired properly and trailer NOT Connected.



- Unit has power and is Connected to a trailer load.

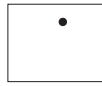


- Manual Slide or Tow Vehicle Brakes applied and trailer Connected, typical ones and tenths voltage display.



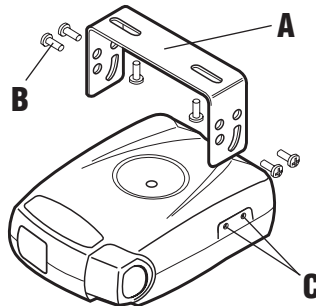
- Manual Slide or Tow Vehicle Brakes applied and trailer Connected, typical tens and ones voltage display.

### Upside Down



**NOTE:** Display shows tenths of a volt up to 9.9. After 9.9 the display shows whole digits only.

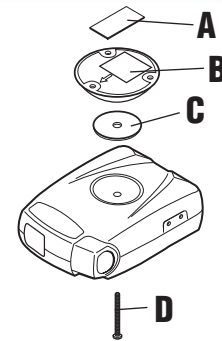
## Installation Guide



- A. Mounting Bracket
- B. #6 x 3/8" Screws
- C. Mounting Holes

1. **CAUTION** Drilling or use of longer screws may damage unit.
2. Securely mount *bracket* to a solid surface.
3. Insert supplied #6 x 3/8" screws on each side into the mounting holes.
4. Adjust Brake Control to desired position and tighten *screws* until snug.

## Optional Mounting Ball (Purchased Separately)

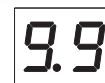


- A. Double Sided Tape
- B. Mounting Ball
- C. Foam Gasket
- D. Mounting Screw

1. Using *mounting ball*, find a desired location.
2. Attach *double sided tape* to back of *mounting ball*.
3. With the other side of the *double-sided tape*, temporarily attach *mounting ball* to desired location.
4. **CAUTION** Check behind dash for wires, etc. before drilling.
5. Using *mounting ball* as a template drill (3) 1/16" holes for a #6 screw size.
6. **Permanently** secure *mounting ball* using (3) #6 x 3/8" screws supplied.
7. Insert *mounting screw* through bottom of the control.
8. Place *foam gasket* on top of the control inserting *mounting screw* through hole in gasket.
9. Attach control to *mounting ball*.
10. Rotate control to desired position and tighten *mounting screw* until snug.

## Changing the Display Orientation

### Right Side Up



### Upside Down



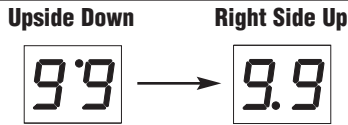
To change the display orientation from *right side up* to *upside down*:

1. Connect white, red and blue wire to tow vehicle.
2. While applying the brake pedal or *manual slide knob*, connect Black Wire (Battery) to the tow vehicle.
3. Display should now be upside down.

Continued On Next Page

# Instructions for Pilot® Brake Control (continued)

**NOTE:** If using a wiring harness, apply brake pedal or manual slide knob while snapping connector to tow vehicle.



To change the display orientation from *upside down* to *right side up*:

1. Disconnect Black Wire (Battery) from tow vehicle.
2. Wait 5 seconds.
3. Reconnect Black Wire (Battery) **DO NOT** apply brake pedal or *manual slide knob* while connecting wire.

## Adjusting the Power to the Trailer Brakes

Once the control has been installed, it is necessary to set the power needed to stop the trailer during a braking event.

1. Connect trailer to tow vehicle.
2. Locate the *manual slide knob* and *power knob* on the control.
3. While applying the *manual slide knob* turn *power knob* until display reads 4.0.
4. Drive tow vehicle and trailer on a dry level paved surface at 25 mph and apply *manual slide knob*.
  - ✓ If trailer brakes lock up:
    - Turn power down using *power knob*.
  - ✓ If braking was not sufficient:
    - Turn power up using *power knob*.
5. Repeat Step (4) until power has been set to a point just below wheel lock up or at a sufficient force as to achieve maximum braking power.

**NOTE:**

1. Always warm the trailer's brakes before setting the power. Warm trailer brakes tend to be more responsive than cold brakes. To warm trailer brakes, drive a short distance (1/4 mile) at 45 MPH with manual lever engaged enough to cause trailer braking at a low level.
2. **WARNING** The power should never be set high enough to cause trailer brakes to lock up. Skidding trailer wheels can cause loss of directional stability of trailer and tow vehicle.
3. The power may need to be adjusted for different load weights and road conditions.
4. Not all trailer brakes will lock up due to various conditions. However, inability to lock up the brakes generally indicates the need for an inspection to determine the cause.
5. When the power is set correctly you should feel unified braking between the trailer and tow vehicle.

## Troubleshooting Chart

Situation	Probable Cause
No Trailer connected, Manual Slide Knob or Brake Pedal is activated: No "." on two digit display.	1. Poor connection on POWER (BLACK wire) or GROUND (WHITE wire).
Tow Vehicle connected to trailer, Manual Slide Knob or Brake Pedal NOT ACTIVATED: No ".C" on two digit display.	1. Corrosion on trailer plug contact. 2. Poor connection on POWER (BLACK wire) or GROUND (WHITE wire). 3. Poor connection on BRAKE line (BLUE wire). 4. 12 volts from external source on BRAKE line (BLUE wire).
Tow Vehicle connected to trailer, Manual Slide Knob or Brake Pedal is activated: A. Only "." on two digit display. B. 0.0 or less than 1.0 on two digit display. C. 5.0 - 6.0 on two digit display. (Power set to MAX)	1. Poor connection on BRAKE line (BLUE wire). 1. Power set too low. 2. Poor connection on BRAKE line (BLUE wire). 3. BLACK & WHITE wires reversed, control destroyed. 1. Open on GROUND line (WHITE wire).
Braking with foot pedal is too aggressive.	1. Power set too high.
Braking with foot pedal is too light.	1. Power set too low.

## Appendix A: Trailer Brake Adjustment\*\*

Brakes should be adjusted after the first 200 miles of operation when the brake shoes and drums have "seated" and at 3000 mile intervals, or as use and performance requires. The brakes should be adjusted in the following manner:

1. Jack up trailer and secure on adequate capacity jack stands. Follow trailer manufacturers recommendations for lifting and supporting the unit. Check that the wheel and drum rotate freely.
2. **WARNING** Do not lift or support trailer on any part of the axle or the suspension system.
3. Remove the adjusting hole cover from the adjusting slot on the bottom of the brake backing plate.
3. With a screwdriver or standard adjusting tool, rotate the starwheel of the adjuster assembly to expand the brake shoes. Adjust the brake shoes out until the pressure of the linings against the drum makes the wheel very difficult to turn.

*Note: With drop spindle axles, a modified adjusting tool with about an 80 degree angle should be used.*

4. Then rotate the starwheel in the opposite direction until the wheel turns freely with a slight lining drag.
5. Replace the adjusting hole cover and lower the wheel to the ground.
6. Repeat the above procedure on all brakes.

**WARNING** Never crawl under your trailer unless it is resting on properly placed jack stands.

Follow the trailer manufacturers recommendations for lifting and supporting the unit. Do not lift or place supports on any part of the suspension system.

\*\*Note: Trailer Brake Adjustment procedures courtesy Dexter Axle.